Section G, A. A. A. S.

Proceedings of the Section.

The section of botany was called to order on Thursday morning by Vice-president Arthur, Mr. B. T. Galloway being secretary, and proceeded to organize by electing the following officers: councilor, B. L. Robinson; members of sectional committee, N. L. Britton, Wm. Trelease, C. R. Barnes; member of nominating committee, David F. Day; committee to nominate officers of section, F. V. Coville, F. H. Knowlton, William Trelease; press secretary, W. T. Swingle.

Mr. Galloway being compelled to leave on Friday, Mr. M. B. Waite was then elected secretary for the remainder of the meeting.

Mr. J. E. Humphrey gave a brief account of the undertaking of Dr. H. H. Field in securing the cooperation of scientific bodies and governments in the establishment of an international bureau, with headquarters at Zürich, for indexing zoological literature.

A committee on international bibliography was appointed to watch the workings of this Swiss bureau and to report to the section a plan of cooperation by which botanical literature may be included if the scheme seems to promise success. The president named Messrs. Humphrey, Coville and Underwood as this committee.

The committee on bibliography presented a report of its work during the past year.

Your committee beg leave to submit the following report:

The author index to American literature has been continued throughout the past year with the cooperation of the editors of the *Bulletin* of the Torrey Botanical Club. Various difficulties arising in the publication of this index suggest to the committee the following necessary limitations to its contents. It is therefore recommended,

1. That all bacteriological, horticultural and agricultural titles be omitted: but in any case of doubt the title is to be included.
2. That all references to exsiccatæ be excluded.
3. That all references to reviews be excluded.

The committee also report that the journal index, which it was hoped would be begun in the past year, has been delayed by the desire to cooperate with and obtain the benefit of the similar work of the Boston Public Library. The committee expect that this will be published very shortly.

We have also made arrangements for the publication of a subject index of American literature. This will be begun with January, 1896.

The committee received a grant of $25.00 from the A. A. A. S. to cover the cost of printing the rules for citation adopted by the section and the cost of distributing the same. The stereotyping, printing, and distributing of nearly 1,000 copies of these rules has left a balance in the hands of the committee of only $0.64. As a small additional expense will probably be incurred, the committee recommend that the council of the A. A. A. S. be requested to grant $5.00 additional for the expenses of the committee.

C. R. BARNES,
N. L. BRITTON,
A. B. SEYMOUR,
Committee.

The report was received and adopted.

The Committee on Geographic Botany submitted the following report:

Your committee, in considering the importance of this subject in scientific, educational, and economic aspects, have thought it best simply to point out for the use of those desirous of taking up the matter some of the more recent works on geographic botany, and certain salient points relative to its terminology and its study.

We would call attention first to Drude's Handbuch der Pflanzengeographie[1] as the most complete résumé of the subject, and to his Atlas der Pflanzenverbreitung[2] as containing the most comprehensive floral maps. For the United States, we would recommend to the student the biologic maps issued about once a year from the Division of Ornithology and Mammalogy, U. S. Department of Agriculture, in which are graphically represented the general results of a distributional study of our animals and plants.

The terminology of geographic botany has not yet attained that degree of uniformity and definiteness which proper scientific expression demands. As a beginning in this direction the following definitions of certain terms in common use are recommended for adoption:

Range: the region over which a type spontaneously grows. The word type is here used as a general term for which in particular instances variety, species, genus, or the name of any group may be substituted.

Locality: the approximate geographic position of an individual specimen. A locality may be given in general terms as "Virginia," or more definitely as "near Washington, D. C.," or still more specifically as "Analostan Island, D. C."

Station: the precise spot upon which a specimen has been collected or observed. The stations of plants, while useful in local catalogues, will seldom be employed in monographic or cartographic works, an approximate location such as that cited under the definition of locality being sufficient for these purposes.

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[1] OSCAR DRUDE. Handbuch der Pflanzengeographie. pp. 528. 8°. Stuttgart 1890.

[2] OSCAR DRUDE. Atlas der Pflanzenverbreitung. pp. 8. Eight maps. f°. Gotha 1887. (Berghaus' Physikalicher Atlas, abth. 5.)

Habitat: the character of the place in which a type occurs. As examples of the use of this term, may be cited the expression "in moist woods," or "in sandy pine barrens," or "in sphagnum bogs."[3]

Your committee wish furthermore to point out one phase of work in geographic botany in which almost every botanist may render important service to the science, namely the study of the "Pflanzenformation," or as it may be styled in English, the *plant formation*. This is an assemblage of plants, living together in a community, subjected to the same environmental conditions, and working with each other to maintain their existence under these conditions. The sphagnum bog of New England, the savannah of North Carolina, the pine and oak scrub of Florida, the prairie of Iowa, the chaparral of California, the yellow pine forest of the New Mexican plateau, and many other types of vegetative growth, are examples of such formations. The extent of each formation, the identification of the plants of which it is composed, their relation to each other, and their combined relation to their environment, are matters of the deepest interest, awaiting the investigation of the systematist, the anatomist, and the physiologist.

Respectfully submitted,

FREDERICK V. COVILLE,
N. L. BRITTON,
WALTER T. SWINGLE,
Committee.

The report was briefly discussed, and adopted.

A resolution requesting a grant of $100.00 for the support of a botanical table at the Marine Biological Laboratory at Woods Hole, was presented and unanimously endorsed by the section for transmission to the council.

Abstract of papers read before Section G of the A. A. A. S.

The address of the vice-president of the Section, Dr. J. C. Arthur, on "The Development of Vegetable Physiology," was delivered on Thursday, August 29th, before a large and appreciative audience. The address is given in full in another part of this number.

Papers were read before the section on the following Friday and Monday as follows:

FRIDAY MORNING, AUGUST 30TH.

RUSSELL, H. L.: *A leaf-rot of cabbage.*—Mr. Russell described a bacterial disease attacking the petioles of cabbage leaves near the base and manifesting itself by a wilting of the leaf. It spreads into the parenchyma until it reaches the fibro-vascular bundles, in whose *alkaline* tissues the bacteria

[3] For a somewhat more detailed discussion of these definitions see Contributions from the U. S. National Herbarium **4:** 10, 11. 1893.